

# Air Force KC-46A Tanker Aircraft Program

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## Summary

On February 24, 2011, the Department of Defense (DOD) announced the Boeing Company as the winner of a competition to build 179 new KC-46A aerial refueling tankers for the Air Force, a contract valued at roughly \$35 billion. Prior to the announcement, the program had been known as KC-X.

The KC-46A acquisition program is a subject of intense interest because of the dollar value of the contract, the number of jobs it would create, the importance of tanker aircraft to U.S. military operations, and because DOD's previous attempts to acquire a new tanker since 2001 had ultimately failed.

DOD's KC-46A acquisition strategy poses potential oversight issues for Congress, including the following: What are the effects of budget cuts on executability of the KC-46A program? What if any effect will the announced closure of Boeing's Wichita, KS, plant have on the KC-46 program? What alternatives does the Air Force have to extend KC-135 service life if the KC-46 is delayed?

**FY2013 defense authorization bill:** H.R. 4310, as passed by the House, recommended approving the Administration's request for \$1,815.6 million in research and development funding for the Next Generation Aerial Refueling Aircraft program. S. 3254, as passed by the Senate, recommended \$1,728.5 million, \$87.1 million less than the Administration's requested funding level for KC-X. The FY2013 conference report set funding at \$1,738.5 million, \$77.1 million less than the Administration's request, citing excess prior-year funds.

**FY2013 DOD appropriations bill:** The House Appropriations Committee, in its report (H.Rept. 112-493 of May 25, 2012), recommended approving the Administration's request for \$1,815.6 million in research and development funding for the Next Generation Aerial Refueling Aircraft program. The Senate Appropriations Committee, in its report (S.Rept. 112-196 of August 2, 2012), recommended \$1,738.5 million for the Next Generation Aerial Refueling Aircraft, a reduction of \$77.1 million from the Administration request. The explanatory statement accompanying the conference report on H.R. 933 put funding at \$1,738.5 million.

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## Introduction

On February 24, 2011, the Department of Defense (DOD) announced the Boeing Company as the winner of a competition to build 179 new KC-46A aerial refueling tankers for the Air Force, a contract valued at roughly \$35 billion.

The KC-Xs, to be procured at a maximum rate of 15 aircraft per year, are to replace roughly one-third of the Air Force's aging fleet of KC-135 aerial refueling tankers. The Air Force and the U.S. Transportation Command state that replacing the KC-135s is their highest recapitalization priority.

The Administration's proposed FY2014 defense budget requested \$1,558.6 million in Air Force research and development funding to continue KC-46A development and acquisition.<sup>1</sup>

The KC-46A acquisition program is a subject of intense interest because of the dollar value of the contract, the number of jobs it may create, the importance of tanker aircraft to U.S. military operations, and because previous attempts by DOD to move ahead with a KC-X acquisition program over the last several years have led to controversy and ultimately failed. The history of those earlier attempts forms an important part of the context for DOD's KC-X competition, particularly in defining the required capabilities for the KC-46A and designing and conducting a fair and transparent competition.

The issues for Congress in FY2014 are whether to approve, reject, or modify the Air Force's request for FY2014 research and development funding for the KC-46A program, and to evaluate the fairness and transparency of the contract process. Congress' decision on these issues could affect DOD capabilities and funding requirements, and the aircraft manufacturing industrial base.

## Recent Developments

### Initial Basing Candidates

In January 2013, the Air Force announced the list of candidate bases to host the first tranche of KC-46As. Three bases will be selected from the list; one to host training, and one base each from the active Air Force and Air National Guard to host operational KC-46s.

The training unit and active-duty operating base will begin receiving the KC-46A tankers in fiscal 2016 followed by the Guard base in fiscal 2018. Ultimately, the Air Force will establish 10 main operating bases for the 179 tankers that it plans to buy.<sup>2</sup>

According to a Defense Department news release, Altus Air Force Base, Oklahoma, and McConnell Air Force Base, Kansas, are candidate bases for the KC-46A training unit. Altus and McConnell are also candidates to be the first active-duty led KC-46A main operating base, as are Fairchild Air Force Base, Washington, and Grand Forks Air Force Base, North Dakota.

Forbes Air Guard Station, Kansas; Joint-Base McGuire-Dix-Lakehurst, New Jersey; Pease Air Guard Station, New Hampshire; Pittsburgh International Airport Air Guard Station, Pennsylvania;

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<sup>1</sup> The funding was requested in the Air Force's research development, test and evaluation (RDT&E) account in program element (PE) 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.

<sup>2</sup> Jeff Schogol, "Nine bases on final list to host KC-46 tanker," *AirForceTimes.com*, January 13, 2013.

and Rickenbacker Air Guard Station, Ohio, are candidates to be the first Air National Guard led KC-46A main operating base.<sup>3</sup>

## **Effect of FY2013 Budget and Sequestration on KC-46A Contract**

In late 2012, a number of articles and analysts posited that automatic reductions provided for in the Budget Control Act of 2011 (P.L. 112-25), also called “sequestration,” might cause the Air Force to default on the KC-46A development contract, because the cuts would reduce funds available to the program below the fixed price negotiated between Boeing and the Department of Defense.

If enough money was cut and the tanker contract is scuttled, the Air Force would have to renegotiate the contract without any certainty it could keep its fixed-price status, said [Maj. Gen. John] Thompson, who took over the tanker acquisition program five weeks ago.

“Depending on how sequestration is implemented, I might have to break my fixed price contract that I got such a good deal on,” Thompson said. “I don’t want to break my contract and I’m fearful that sequestration may force me to do that.”<sup>4</sup>

The sequestration effect on the KC-46A program would have been in addition to the reduction in program funds resulting from the use of a continuing resolution for the FY2013 DOD budget. “DoD planned to spend \$1.8 billion on the tanker program in fiscal 2013. However, Congress has failed to pass a new budget, leaving programs funded under a continuing resolution that leaves financial support at 2012 levels. For the KC-46 program, that means making do with just \$900 million, or half of what the program office had planned for this year.”<sup>5</sup>

The explanatory statement accompanying the conference report on H.R. 933 put funding at \$1,738.5 million, a reduction of \$77.1 million from the Administration request. At that level, the Air Force “would not need to modify its fixed-price development contract with KC-46-maker Boeing ... Lt. Gen. Charles Davis, the Air Force military deputy for acquisition, said.”<sup>6</sup>

## **Foreign Interest in Acquiring KC-46As**

In September 2012, the government of Singapore submitted a request for information to begin evaluating the KC-46A as a possible replacement for Singapore’s KC-135 tankers.<sup>7</sup>

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<sup>3</sup> Department of Defense, “Air Force Announces KC-46A Candidate Bases,” press release, January 9, 2013, <http://www.defense.gov/releases/release.aspx?releaseid=15771>.

<sup>4</sup> Michael Hoffman, “Fixed-price tanker contract at risk,” *DoDBuzz.com*, September 18, 2012. See also Megan Scully, “Tanker Program Faces Funding Setbacks Under Stopgap Bill,” *CQ Today*, September 19, 2012, and Colin Clark, “Boeing Plows Through KC-46 Reserve Funding; Sequestration Would Be ‘Near Catastrophic’,” *AOL Defense*, September 18, 2012.

<sup>5</sup> Aaron Mehta, “Experts: Budget woes could affect AF’s KC-46,” *Air Force Times*, January 15, 2013.

<sup>6</sup> Marcus Weisgerber, “House bill would protect KC-46 contract funding,” *Air Force Times*, March 12, 2013.

<sup>7</sup> Michael Hoffman, “Fixed-price tanker contract at risk,” *DoDBuzz.com*, September 18, 2012. See also Andrea Shalal-Esa, “Air Force Says Vigilant On Boeing Tanker Program,” *Reuters.com*, September 18, 2012, and Colin Clark, “Boeing Plows Through KC-46 Reserve Funding; Sequestration Would Be ‘Near Catastrophic’,” *AOL Defense*, September 18, 2012.

## KC-46A Training System Contract Awarded

On May 2, 2013, the Air Force announced that FlightSafety Services had won the competition to provide training devices for the KC-46A. “The company won over Boeing, which is developing the KC-46, Lockheed Martin, CAE and L-3 Link Simulation and Training.”<sup>8</sup>

The deal calls for delivery of the first aircrew training device by February 2016. The \$787 million contract contains options for production, training, operations and sustainment, according to an Air Force press statement.<sup>9</sup>

## Program Manager Change

Air Force Major General Christopher Bogdan, the KC-46A program manager, was reassigned to the F-35 program in July 2012. His successor is Major General John F. Thompson.

## Background

### Air Force Refueling Tankers

#### Roles and Missions

Aerial refueling aircraft—commonly called tankers—provide in-flight refueling services to bombers, fighters, airlifters, surveillance aircraft, and other types of aircraft flown by the U.S. military. Tankers enable other aircraft to deploy quickly to distant theaters of operation, and to remain in the air longer while operating in those theaters. Aerial refueling capability is a critical component of the U.S. military’s ability to project power overseas and to operate military aircraft in theater with maximum effectiveness.

The Air Force operates the U.S. long-range tanker fleet, the subject of this report. The Navy and Marine Corps also operate shorter-range tankers in support of tactical missions.

#### Current Tanker Fleet

##### *KC-135 Stratotanker*

The Air Force’s current fleet of large tankers consists mostly of 414 re-engined KC-135R Stratotankers.<sup>10</sup> The first KC-135 entered the Air Force inventory in 1956, and the final one was delivered in 1964. The average age of the current KC-135 fleet is nearly 51 years.<sup>11</sup> The aircraft have received various upgrades and modifications over the years, including new engines.<sup>12</sup> DOD

<sup>8</sup> Amy Butler, “FlightSafety Prevails In Tough Tanker Trainer Competition,” *Aerospace Daily*, May 3, 2013.

<sup>9</sup> Kris Osborn, “Air Force awards KC-46A tanker training system contract,” *DoDBuzz.com*, May 2, 2013.

<sup>10</sup> Testimony of Major General Bruce Litchfield, Special Assistant to the Commander of the Air Force Materiel Command, before the U.S. Congress, House Committee on Armed Services, Subcommittee on Seapower and Projection Forces, *Aerial Refueling Aircraft Programs*, 112<sup>th</sup> Cong., 2<sup>nd</sup> sess., October 13, 2011.

<sup>11</sup> U.S. Government Accountability Office, *KC-46 Tanker Aircraft: Acquisition Plans Have Good Features But Contain Schedule Risk*, 12-366, March 26, 2012, <http://www.gao.gov/assets/590/589590.pdf>.

<sup>12</sup> Air Force Fact sheet on the KC-135, available online at <http://www.af.mil/information/factsheets/factsheet.asp?fsID=110>. The fact sheet was accessed by CRS on May 7, 2013, at which time it carried a date of December 29, 2011. The fact sheet states that:

states that if new tankers are procured at a rate of 15 per year, the last KC-135R would be more than 80 years old at retirement. (For a discussion of the potential longevity of the KC-135 fleet, see **Appendix B**) On September 15, 2009, it was reported that:

It will cost the Air Force up to \$6 billion per year late in the next decade to maintain its aging fleet of KC-135 tankers, according to a senior service official...

The cost of maintaining the Stratotankers will continue to rise as the next-generation KC-X tanker program continues to slip, Air Mobility Command chief Gen. Arthur Lichte said during a briefing today.<sup>13</sup>

### ***KC-10 Extender***

The Air Force's fleet of large tankers also includes about 59 KC-10 Extender aerial refueling aircraft, the first of which entered service in 1981.<sup>14</sup> The KC-10 is a much larger aircraft than the KC-135 or the KC-46A.

## **KC-46A Program Basics**

### **Numbers of Aircraft**

DOD envisages replacing the KC-135 fleet in three stages. The 179 new KC-46As would replace roughly one-third of the KC-135 fleet. Tankers to be procured in the second and third stages would be designated KC-Ys (envisioned as a KC-46A continuation or follow-on) and KC-Zs (a probable replacement for the KC-10 fleet).

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Of the original KC-135A's, more than 415 have been modified with new CFM-56 engines produced by CFM-International. The re-engined tanker, designated either the KC-135R or KC-135T, can offload 50 percent more fuel, is 25 percent more fuel efficient, costs 25 percent less to operate and is 96 percent quieter than the KC-135A.

Under another modification program, a re-engined tanker with the TF-33-PW-102 engine was designated the KC-135E. In 2009, the last KC-135E retired from the inventory.

Through the years, the KC-135 has been altered to do other jobs ranging from flying command post missions to reconnaissance. KC-135s are used for special reconnaissance and Air Force Materiel Command's NKC-135A's are flown in test programs. Air Combat Command operates the OC-135 as an observation platform in compliance with the Open Skies Treaty.

The KC-135R/T model aircraft continue to undergo life-cycle upgrades to expand its capabilities and improve its reliability. Among these are improved communications, navigation, autopilot and surveillance equipment to meet future civil air traffic control needs.

<sup>13</sup> Marcus Weisgerber, "KC-135 Maintenance Costs to Reach \$6 Billion Per Year," *InsideDefense.com (DefenseAlert – Daily News)*, September 15, 2009.

<sup>14</sup> Air Force fact sheet on the KC-135, available online at <http://www.af.mil/information/factsheets/factsheet.asp?id=109>. J. The fact sheet was accessed by CRS on December 7, 2009, at which time it carried a date of September 2008. The fact sheet states that the KC-10 can transport up to 75 people and nearly 170,000 pounds (76,560 kilograms) of cargo a distance of about 4,400 miles (7,040 kilometers) unrefueled.

In addition to KC-135s and KC-10s, the Air Force, Marine Corps, and Navy operate additional smaller refueling aircraft. The Air Force uses modified C-130s to refuel Air Force special operations and combat search and rescue helicopters. The Marine Corps uses modified C-130s to refuel Marine helicopters and fighters. Some Navy aircraft have been configured to give them a secondary capability to refuel other Navy or Marine Corps aircraft in flight. The Navy also provides some aerial refueling through a private fee-for-service vendor.



## Acquisition Cost

A March 2013 GAO report states that the procurement cost of 179 KC-Xs could be about \$34 billion,<sup>15</sup> or an average of about \$190 million per aircraft. The KC-46 is being acquired using a fixed-price incentive development contract with firm-fixed and not-to-exceed pricing or production. This contract structure effectively limits the total cost borne by taxpayers, with most of the cost growth risk placed on the contractor.

## Contract Structure

The KC-46 program utilizes a fixed-price incentive development contract. The target value is \$4.4 billion, with government liability limited for costs over \$4.9 billion.

Boeing sources confirmed that arrangement on Wednesday, saying if the costs fall in the \$3.9 billion to \$4.9 billion “delta,” the Air Force would pay 60 percent and Boeing 40 percent. That is the contract structure and cost arrangement accepted by the Air Force, the Boeing sources said, noting the service weighed this against cost projections for the same scenario offered by Airbus’s EADS.<sup>16</sup>

The tanker’s estimated development costs are currently around \$900 million higher than the February 2011 contract award value, but the USAF is liable for only about \$500 million of this total. The remaining \$400 million is Boeing’s responsibility.<sup>17</sup>

[T]he contract has a mechanism to vary production rates. For example, in years three, four and five, the USAF has the option of buying between nine and 18 jets and would still get good prices, (program executive officer Maj. Gen Christopher) Bogdan says.<sup>18</sup>

## Program Schedule

In testimony before the House Armed Services Committee Subcommittee on Seapower and Projection Forces, the then-Air Force acquisition executive stated:

VAN BUREN: Well, the contract that we currently have runs through 2016 for EMD. We’ll have a preliminary design review in 2012, critical design review in ‘13, build the aircraft, first flight of the 767-2C in 2014. And...

AKIN: So the first flight’s 2014. OK. And then?

VAN BUREN: Roughly three years from contract award. And then we’ll have the full-up KC-46 first flight at the end of 2014.<sup>19</sup>

<sup>15</sup> Government Accountability Office, *Defense Acquisitions[:] Assessments of Selected Weapon Programs*, GAO-13-294SP, March 2013, p. 91.

<sup>16</sup> John T. Bennett, “Boeing official says nothing’s changed in Air Force tanker plans,” *The Hill*, July 20, 2011.

<sup>17</sup> Dave Majumdar, “IN FOCUS: Boeing must deliver on KC-46, USAF says,” *FlightGlobal.com*, April 23, 2012.

<sup>18</sup> Ibid.

<sup>19</sup> Testimony of David Van Buren, Air Force Service Acquisition Executive, before the U.S. Congress, House Committee on Armed Services, Subcommittee on Seapower and Projection Forces, *Aerial Refueling Aircraft Programs*, 112<sup>th</sup> Cong., 2<sup>nd</sup> sess., October 13, 2011.

## Statements on KC-X Priority

DOD states that “with the average age of the [KC-135] inventory over 45 years old, a new Tanker has become an operational necessity as well as a financially prudent decision to meet refueling requirements.”<sup>20</sup>

The Air Force testified in May 2013 that:

Replacing one-third of the 50 year-old KC-135 aerial refueling tanker fleet with the KC-46A is our top Air Force acquisition priority. The KC-46A program will ensure that our Nation retains a tanker fleet able to provide crucial air refueling capacity worldwide for decades to come. In FY14, we programmed \$1.6 billion dollars for the manufacture of four developmental aircraft. The initial flights of the KC46A test aircraft are scheduled to begin in FY14. The program is currently executing as planned, and we are on track to receive 18 operational aircraft by late FY17. Until the KC-46A reaches full operational capability, we are resourcing critical modernization of the KC-10 and KC-135 tanker fleets.<sup>21</sup>

## Industrial Base

### Asserted Employment Effects

Boeing’s initial plan for the KC-46A called for 767s to be assembled at the Boeing plant in Everett, WA, and be converted into tankers at Boeing’s plant in Wichita, KS. Boeing claimed that “nationwide, the NewGen Tanker program will support approximately 50,000 total U.S. jobs with Boeing and more than 800 suppliers in more than 40 states.”<sup>22</sup> Subsequently, Boeing decided to close the Wichita facility and instead complete the tankers in Everett, WA.

With regard to the change, Major General Christopher Bogdan, then the KC-46A program manager, said:

Without a doubt, closing Wichita is a change to the plan, and any change on a program like this is going to introduce some uncertainty and some risk... And so, quite frankly, we are going to hold them accountable to make sure that the risks don’t manifest themselves. To do that I’ve got to make sure they have plans in place and we are involved in the oversight of that move ... under the same cost structure, under the same schedule with the same requirements.<sup>23</sup>

## Acquisition Strategy and Draft RFP

The most recent failed attempt to acquire KC-X was a competition between Boeing and a team of Northrop Grumman and EADS that resulted in DOD awarding a contract to Northrop/EADS in February 2008. Boeing protested that award, and in June 2008, the Government Accountability Office (GAO) sustained Boeing’s protest, agreeing with Boeing that the competition was conducted in a flawed manner.<sup>24</sup> GAO’s ruling prompted DOD to cancel the 2008 KC-X

<sup>20</sup> Department of Defense, *Fiscal Year 2010 Budget Request, Summary Justification*, May 2009, p. 1-50.

<sup>21</sup> Statement of Michael B. Donley, Secretary of the Air Force, and General Mark A. Welsh III, Chief of Staff, United States Air Force, Before the Senate Armed Services Committee [Hearing] May 7, 2013, pp 11-12.

<sup>22</sup> Boeing, “Boeing Statement on EADS’ Decision to Enter KC-X Tanker Competition,” press release, April 20, 2010, <http://www.unitedstatetanker.com/media/Statement-20100420>.

<sup>23</sup> Amy Butler, “USAF Tanker Chief Sees Wichita Move Complicating Program,” *Aerospace Daily*, April 3, 2012.

<sup>24</sup> For more on GAO bid protests generally, see CRS Report R40227, *GAO Bid Protests: Trends, Analysis, and Options for Congress*, by Moshe Schwartz and Kate M. Manuel, and CRS Report R40228, *GAO Bid Protests: An Overview of Time Frames and Procedures*, by Kate M. Manuel and Moshe Schwartz.

competition and temporarily take control of the KC-X acquisition away from the Air Force. The Bush Administration decided to defer the next attempt at a KC-X acquisition program to the Obama Administration.

According to DOD, key features of the KC-X competition strategy—which are taken from the briefing slides and transcript, respectively) of the September 24, 2009, DOD news briefing at which the proposed strategy was announced—included the following:

- The proposed KC-X competition strategy, known more formally as the Source Selection Strategy, was devised jointly by the Office of the Secretary of Defense (OSD) and the Air Force and was approved by the Secretary of Defense.
- The Air Force will be the Source Selection Authority (SSA) for the competition, as announced by the Secretary of Defense on September 16, 2009.
- DOD intends to select a sole winner for the KC-X competition; DOD does not intend to split the KC-X program between the two bidders.
- The competition will be evaluated on a best-value (rather than lowest-cost) basis that will take both price and non-price factors into account. The evaluation will include mandatory and non-mandatory/trade space capabilities, acquisition price, warfighting effectiveness, and day-to-day efficiency.
- The competition will differ in many details from the 2007-2008 competition and does not constitute a re-run of the 2007-2008 competition. DOD states that, among other things, the selection criteria to be used in the new competition are more precise and less subjective than those used in the 2007-2008 competition.
- The contracts to be awarded are to be fixed-price type contracts. The winning bidder will receive a fixed-price incentive fee contract with a ceiling for the Engineering and Manufacturing Development (EMD) phase of the program, which includes the first four aircraft. A firm fixed-price (FFP) contract will be used for the next 64 aircraft (production lots 1 through 5). A not-to-exceed contract will be used for the final 111 aircraft (lots 6 through 13). An FFP contract will be used for five years of initial contractor support.
- Following the release of the final RFP, bidders will have about 75 days to prepare and submit their bid. The government will evaluate the bids for about 120 days, and prepare a contract award over a subsequent period of about 30 days. DOD anticipates awarding the contract in the summer of 2010 (since revised to January 2011).
- The first KC-X is projected to be delivered in 2015, and Initial Operating Capability (IOC) for the KC-X is scheduled for 2017. Delivery of all 179 KC-Xs will occur over a period of more than 15 years. As KC-Xs are integrated into the fleet, the Air Force intends to begin evaluating its future tanker needs and begin work on the KC-Y program.

## **Response to the Draft RFP**

On December 1, 2009, Wes Bush, the president and chief executive officer of Northrop Grumman, sent a letter to Under Secretary Carter stating that unless the draft RFP were substantially revised, Northrop Grumman would decline to bid in the KC-X competition. A press report that day stated:

Northrop Grumman Corp., the third- largest U.S. defense company, said it won't bid for the \$35 billion Air Force refueling tanker program unless the draft request for proposals is changed, citing "financial burdens."

The Pentagon has declined to amend the request and didn't plan to "substantially" address Northrop's concerns, Chief Executive Officer Wes Bush wrote in a Dec. 1 letter to Pentagon acquisition chief Ashton Carter. "As a result, I must regrettably inform you that, absent a responsive set of changes in the final RFP, Northrop Grumman has determined that it cannot submit a bid," he wrote.

Northrop and partner European Aeronautic Defence & Space Co. were vying against Boeing Co. to build the refueling tankers. The competition was restarted in September after Boeing successfully protested the award to Northrop and EADS last year.

The Pentagon's request shows a "clear preference" for a smaller tanker than the modified Airbus A330 that Northrop plans to offer, and continuing to compete for the tankers would impose "contractual and financial burdens on the company that we simply cannot accept," Bush wrote in the letter.

"The Department regrets that Northrop Grumman and Airbus have taken themselves out of the tanker competition and hope they will return when the final request for proposals is issued," Pentagon spokesman Bryan Whitman said in an e-mail. "The Department wants competition but cannot compel the two airplane makers to compete."...

Both competitors "have suggested changes to the request for proposals that would favor their offering," Whitman wrote in the e-mail. "But the Department cannot and will not change the warfighter requirements for the tanker to give advantage to either competitor."<sup>25</sup>

## Final RFP

The final KC-X RFP was issued on February 24, 2010. Overall, the final requirements for the KC-X aircraft appeared to have changed little from those in the draft RFP. One requirement was eliminated (bringing the total to 372), and none added. The financial structure of the proposed contract, however, changed substantially.

**Table 1. Major Differences Between KC-X Draft RFP and Final Document**

Issue	Draft RFP	Final RFP
Microwave Landing System	Required	Not required
Large Aircraft Infrared Countermeasures	Contractor to procure and include in price	Government will furnish
Contract type	Development phase: Fixed-price with incentive fee.	Development phase unchanged.
	Production lots 1-2: Firm fixed price.	Production lots 1-2 unchanged.
	Production lots 3-5: Firm fixed price, with 5% inflation trigger for price adjustment.	Production lots 3-5: Not to Exceed, with 2.5% inflation trigger.
	Production lots 6-13: Not to Exceed, with 5% trigger.	Production lots 6-13: Not to Exceed, with 1% trigger.
	Contractor support: Firm fixed price.	Contractor support unchanged.

<sup>25</sup> Gopal Ratnam and Alison Fitzgerald, "Northrop Declines Tanker Bid on 'Financial Burdens' (Update2)," *Bloomberg.com*, December 1, 2009.

Issue	Draft RFP	Final RFP
Mission modeling	IFARA (Integrated Fleet Air Refueling Assessment) model used to determine operational suitability.	IFARA ground rules updated “to ensure they reflected current operational practices.” <sup>a</sup>
Alert quick-start	Did not specify temperatures at which power carts were allowed for environmental control.	Established a range of temperatures for which power carts could be allowed for both heating and cooling the aircraft.
Fuel burn	Penalty if actual fuel use exceeds contractor’s proposal.	Incentive if fuel use is less than contractor’s proposal.
Proposal due date	60 days	75 days

**Source:** CRS analysis.

- a. Briefing script of Dr. Ashton Carter, Undersecretary of Defense for Acquisition, Technology, & Logistics, obtained by CRS.

After evaluating the final RFP, on March 8, 2010, the Northrop/EADS team withdrew from the competition.<sup>26</sup>

DOD then extended the bid deadline by 60 days, to July 9, 2010.<sup>27</sup> Subsequently, on April 20, 2010, EADS announced that its North American division would enter the competition on its own.<sup>28</sup>

## Legislative Activity for 2013

### FY2013 Funding Request

The Administration’s proposed FY2013 defense budget requested \$1,815.6 million in Air Force research and development funding to continue KC-46A development and acquisition.<sup>29</sup>

### FY2013 Defense Authorization Act (H.R. 4310/S. 3254)

#### House

The House Armed Services Committee, in its report accompanying H.R. 4310, recommended funding the Next Generation Aerial Refueling Aircraft program at \$1,815.6 million, the requested level.

<sup>26</sup> See, inter alia, Colin Clark, “Northrop Drops Tanker Bid,” *DoD Buzz*, March 8, 2010 and John Reed, “Northrop Won’t Bid on USAF Tanker,” *DefenseNews.com*, March 8, 2010.

<sup>27</sup> Michael Bruno, “USAF KC-X Bid Deadline Extended 60 Days,” *AviationWeek/Ares* blog, March 31, 2010.

<sup>28</sup> John Reed, “EADS Confident Its KC-45 Can Compete for USAF Tanker Bid,” *DefenseNews.com*, April 20, 2010.

<sup>29</sup> The requested funding is found in the Air Force’s research development, test and evaluation (RDT&E) account in program element (PE) 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.

## **Senate**

The Senate Armed Services Committee, in its report accompanying S. 3254,<sup>30</sup> recommended funding the Next Generation Aerial Refueling Aircraft program at \$1,728.5 million, \$87.1 million below the requested level, with the following explanation:

### **Next generation aerial refueling aircraft**

The budget request included \$1,815.6 million to continue development of the KC-46A, the next-generation aerial refueling aircraft.

The program office received fiscal year 2010 and fiscal year 2011 Tanker Replacement Transfer Fund (TRTF) funds in fiscal year 2011 that provided \$135.0 million more research, development, test, and evaluation (RDT&E) funding than the Air Force believed it needed during that period. The Department of the Air Force applied \$47.9 million of the \$135.0 million to small business innovation research activities, leaving \$87.1 million of the \$135.0 million in excess fiscal year 2011 funding available to cover fiscal year 2012 activities. Since Congress already provided full funding of the fiscal year 2012 requirement, the Department could apply \$87.1 million in fiscal year 2012 funds against fiscal year 2013 funding requirements. Therefore, the committee recommends a reduction of \$87.1 million in the budget request for the KC-46A EMD program.

## **FY2013 Defense Appropriations Act (H.R. 5856)**

### **House**

The House Appropriations Committee, in its report accompanying H.R. 5856, recommended funding the Next Generation Aerial Refueling Aircraft program at \$1,815.6 million, the requested level. It directed submission of reports on program cost growth, stating:

### **KC-46A**

The Committee directs the Secretary of the Air Force to continue to submit quarterly reports on any KC-46A contract modifications with a cost greater than or equal to \$5,000,000, as directed by the explanatory statement accompanying the Consolidated Appropriations Act, 2012.

### **Senate**

The Senate Appropriations Committee, in its report accompanying H.R. 5856, recommended funding the Next Generation Aerial Refueling Aircraft program at \$1,738.5 million, \$77.1 million below the requested level, for “Air Force identified forward financing.”

### **Final Action**

FY2013 appropriations levels were ultimately established by H.R. 933, the Consolidated and Further Continuing Appropriations Act, 2013. The explanatory statement accompanying the conference report on H.R. 933 put funding at \$1,738.5 million.<sup>31</sup>

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<sup>30</sup> S.Rept. 112-173, accompanying S. 3254, National Defense Authorization Act for Fiscal Year 2013.

<sup>31</sup> “Explanatory Statement accompanying the Department of Defense, Military Construction and Veterans Affairs, and Full-Year Continuing Appropriations Act, 2013,” *Congressional Record*, March 6, 2013, p. H1199.

## **Appendix A. Prior Legislative Activity**

### **FY2012 Funding Request**

The Administration's proposed FY2012 defense budget requested \$877.0 million in Air Force research and development funding to begin the KC-46A acquisition.<sup>32</sup>

### **FY2012 Defense Authorization Act (H.R. 1540/S. 1253)**

#### **House**

As passed by the House, H.R. 1540 recommended \$849.9 million in funding for the Next Generation Aerial Refueling Aircraft program, a reduction of \$27.2 million from the Administration's request. The bill also included a requirement to report on changes in the KC-46A acquisition program:

#### **SEC. 241. ANNUAL COMPTROLLER GENERAL REPORT ON THE KC-46A AIRCRAFT ACQUISITION PROGRAM.**

(a) Annual GAO Review- During the period beginning on the date of the enactment of this Act and ending on March 1, 2017, the Comptroller General of the United States shall conduct an annual review of the KC-46A aircraft acquisition program.

(b) Annual Reports-

(1) IN GENERAL- Not later than March 1 of each year beginning in 2012 and ending in 2017, the Comptroller General shall submit to the congressional defense committees a report on the review of the KC-46A aircraft acquisition program conducted under subsection (a).

(2) MATTERS TO BE INCLUDED- Each report on the review of the KC-46A aircraft acquisition program shall include the following:

(A) The extent to which the program is meeting engineering, manufacturing, development, and procurement cost, schedule, performance, and risk mitigation goals.

(B) With respect to meeting the desired initial operational capability and full operational capability dates for the KC-46A aircraft, the progress and results of—

(i) developmental and operational testing of the aircraft; and

(ii) plans for correcting deficiencies in aircraft performance, operational effectiveness, reliability, suitability, and safety.

(C) An assessment of KC-46A aircraft procurement plans, production results, and efforts to improve manufacturing efficiency and supplier performance.

(D) An assessment of the acquisition strategy of the KC-46A aircraft, including whether such strategy is in compliance with acquisition management best-practices and the acquisition policy and regulations of the Department of Defense.

(E) A risk assessment of the integrated master schedule and the test and evaluation master plan of the KC-46A aircraft as it relates to—

(i) the probability of success;

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<sup>32</sup> The requested funding is found in the Air Force's research development, test and evaluation (RDT&E) account in program element (PE) 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.



(ii) the funding required for such aircraft compared with the funding budgeted; and

(iii) development and production concurrency.

(3) **ADDITIONAL INFORMATION-** In submitting to the congressional defense committees the first report under paragraph (1) and a report following any changes made by the Secretary of the Air Force to the baseline documentation of the KC-46A aircraft acquisition program, the Comptroller General shall include, with respect to such program, an assessment of the sufficiency and objectivity of—

(A) the integrated baseline review document;

(B) the initial capabilities document;

(C) the capabilities development document; and

(D) the systems requirement document.

H.Rept. 112-78, accompanying H.R. 1540, explained the funding reduction:

KC-46A aerial refueling aircraft program

The budget request contained \$877.1 million in PE 65221F for the next generation aerial refueling aircraft, KC-46A.

The committee supports the attributes and benefits regarding the KC-46A competition and acknowledges that the source-selection process was conducted fairly amongst all competitors. According to Department of Defense acquisition officials, the competition resulted in at least a twenty percent savings for the unit cost of the aircraft and a savings of \$3.0 to \$4.0 billion as compared to the source-selection competition held for the tanker in 2008.

The committee plans to closely monitor the KC-46A engineering, manufacturing and development program to ensure that the taxpayer dollars are wisely invested and that the platform will result in a capability that enhances the warfighter's global reach capabilities. The committee also understands that the Under Secretary of Defense for Acquisition, Technology and Logistics (USD, AT&L) will conduct quarterly reviews of the Air Force's KC-46A program.

Elsewhere in this title, the committee includes a provision that would require the Comptroller General of the United States to conduct an annual review of the KC-46A program and to provide the results to the congressional defense committees beginning on March 1, 2012. Furthermore, the committee directs USD, AT&L to provide to the congressional defense committees the results of each quarterly review of the KC-46A program within 30 days after the date of completion of each review. At each quarterly review briefing, USD, AT&L is directed to provide notice of a major engineering, design, capability or configuration change to the KC-46A, and cost for that change when it becomes known, that is different from the baseline aircraft offered in the final proposal related to Air Force contract #FA8625-11-C600.

The committee recommends \$849.9 million, a decrease of \$27.2 million, in PE 65221F for the next generation aerial refueling aircraft because that funding is in excess to the \$818.0 million obligation authority limited by USD, AT&L for the program for fiscal years 2010 and 2011.

## **Senate**

The report accompanying S. 1253 as passed by the Senate Armed Services Committee (S.Rept. 112-26, accompanying S. 1253) recommended \$749.1 million for the Next Generation Aerial Refueling Aircraft, a reduction of \$127.1 million from the Administration's request, to "Align funding to signed KC-46A contract." The report went on to explain:



### Next generation aerial refueling aircraft

The budget request included \$877.1 million to continue development of the KC-46A, the next-generation aerial refueling aircraft. The Air Force developed the budget estimates before signing the contract for the KC-46A and before knowing the funding required, and the timing of that requirement. Based on a comparison of the program's fiscal year 2012 budget submission and the contemplated funding allotments for fiscal year 2011 specified in the recently signed engineering and manufacturing development (EMD) contract, the Air Force already has funds that are well in excess of what is needed to execute the current KC-46A contract. The program will need roughly \$753.5 million to cover planned fiscal year 2011 activities, but the program has \$830.5 million available in fiscal year 2011 from regular appropriations and the Tanker Replacement Transfer Fund. This means that \$77.0 million is available within the program to pay for fiscal year 2012 KC-46A EMD activities.

In addition, the fiscal year 2012 budget request of \$877.1 million for KC-46A EMD exceeds fiscal year 2012 requirements for the EMD by \$50.1 million. In total, this means that the budget request for fiscal year 2012 exceeds the amount of funds to keep the KC-46A program fully funded and on schedule by a total of \$127.1 million.

Therefore, the committee recommends a reduction of \$127.1 million in the budget request for the KC-46A EMD program.

## Final Action

The conference report accompanying H.R. 1540 as passed recommended \$742.1 million for the Next Generation Aerial Refueling Aircraft, a reduction of \$135.0 million from the Administration's request—\$127.1 million was cut to “Align funding to signed KC-46A contract,” and \$7.9 million was considered “excess to requirement.” The conference report also included the House reporting requirement:

### SEC. 244. ANNUAL COMPTROLLER GENERAL REPORT ON THE KC-46A AIRCRAFT ACQUISITION PROGRAM.

(a) ANNUAL GAO REVIEW.—During the period beginning on the date of the enactment of this Act and ending on March 1, 2017, the Comptroller General of the United States shall conduct an annual review of the KC-46A aircraft acquisition program.

(b) ANNUAL REPORTS.—

(1) IN GENERAL.—Not later than March 1 of each year beginning in 2012 and ending in 2017, the Comptroller General shall submit to the congressional defense committees a report on the review of the KC-46A aircraft acquisition program conducted under subsection (a).

(2) MATTERS TO BE INCLUDED.—Each report on the review of the KC-46A aircraft acquisition program shall include the following:

(A) The extent to which the program is meeting engineering, manufacturing, development, and procurement cost, schedule, performance, and risk mitigation goals.

(B) With respect to meeting the desired initial operational capability and full operational capability dates for the KC-46A aircraft, the progress and results of—

(i) developmental and operational testing of the aircraft; and

(ii) plans for correcting deficiencies in aircraft performance, operational effectiveness, reliability, suitability, and safety.

(C) An assessment of KC-46A aircraft procurement plans, production results, and efforts to improve manufacturing efficiency and supplier performance.

(D) An assessment of the acquisition strategy of the KC-46A aircraft, including whether such strategy is in

compliance with acquisition management best-practices and the acquisition policy and regulations of the Department of Defense.

(E) A risk assessment of the integrated master schedule and the test and evaluation master plan of the KC-46A aircraft as it relates to—

(i) the probability of success;

(ii) the funding required for such aircraft compared with the funding budgeted; and

(iii) development and production concurrency.

(3) ADDITIONAL INFORMATION.—In submitting to the congressional defense committees the first report under paragraph (1) and a report following any changes made by the Secretary of the Air Force to the baseline documentation of the KC-46A aircraft acquisition program, the Comptroller General shall include,

with respect to such program, an assessment of the sufficiency and objectivity of—

(A) the integrated baseline review document;

(B) the initial capabilities document;

(C) the capabilities development document; and

(D) the systems requirement document.

## **FY2012 Defense Appropriations Act (H.R. 2219)**

### **House**

The House Appropriations Committee, in its report (H.Rept. 112-110, accompanying H.R. 2219) recommended funding the Next Generation Aerial Refueling Aircraft at the Administration's request, \$877.1 million. The report also stated:

#### **KC-46A CHANGE REPORTING**

The award for the Air Force's KC-46A aerial refueling tanker was announced on February 24, 2011. The Committee's recommendation fully funds the request for this vital program. Air Force leadership testified before the Committee that efforts would be made to ensure that the new tanker will be delivered within cost and on schedule. In order to further this approach, the Committee directs the Secretary of the Air Force to report any authorized contract modifications with a cost greater than or equal to \$5,000,000 to the congressional defense committees not later than 30 days following the authorization of such change.

### **Senate**

The Senate Appropriations Committee report (S.Rept. 112-77, accompanying H.R. 2219) recommended \$742.1 million for the Next Generation Aerial Refueling Aircraft, a reduction of \$135.0 million from the Administration's request, with the accompanying language:

*KC-46A-* The budget request includes \$877,084,000 for the development of a next generation aerial refueling tanker. Replacing the aging tanker fleet is essential to the Air Force's modernization efforts, and the Committee remains very supportive of this program. However, after the budget was submitted, the Air Force conducted an Integrated Baseline Review [IBR] of the program, which changed the annual spending plan to complete the development effort of the program. As a result, the Air Force identified \$135,000,000 that

will not be required in fiscal year 2012. Therefore, the Committee recommends reducing the request by this amount to align the budget with the new IBR.

## **Final Action**

The Joint Explanatory Statement of the Committee of Conference on the FY2012 defense appropriations bill funded the Next Generation Aerial Refueling Aircraft at the Administration's request, \$877.1 million. It included one provision regarding the KC-46 program, referring to the House report provision on change reporting:

### **KC-46A**

The conferees direct the Secretary of the Air Force to submit the reports regarding the KC-46A required in H.Rept. 112-110 on a quarterly basis, with the first report to be submitted not later than March 30, 2012.

## **FY2011 Funding Request**

The Administration's proposed FY2011 defense budget requested \$863.9 million in Air Force research and development funding to begin the KC-X acquisition.<sup>33</sup>

## **FY2011 Defense Authorization Bill (H.R. 5136/S. 3454)**

### **House (H.R. 5136)**

The House Armed Services Committee, in its report on H.R. 5136,<sup>34</sup> recommends approving the Administration's request for \$863.9 million in research and development funding for the KC-X program.

In markup, the committee approved an amendment "which would require the Defense Department to take into account subsidies ruled illegal by the World Trade Organization."<sup>35</sup> The text is included as Section 824 of the bill, and states:

#### **SECTION 824—INTERIM REPORT ON REVIEW OF IMPACT OF COVERED SUBSIDIES ON ACQUISITION OF KC-45 AIRCRAFT**

(a) Interim Report- The Secretary of Defense shall submit to the congressional defense committees an interim report on any review of a covered subsidy initiated pursuant to subsection (a) of section 886 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (P.L. 110-417; 122 Stat. 4561) not later than 60 days after the date of the initiation of the review.

(b) Report Contents- The report required by subsection (a) shall contain detailed findings relating to the impact of the covered subsidy that led to the initiation of the review on the source selection process for the KC-45 Aerial Refueling Aircraft Program or any successor to such program and whether the covered subsidy would provide an unfair competitive advantage to any bidder in the source selection process.

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<sup>33</sup> The requested funding is found in the Air Force's research development, test and evaluation (RDT&E) account in program element (PE) 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.

<sup>34</sup> U.S. Congress, House Committee on Armed Services, 111<sup>th</sup> Cong., 2<sup>nd</sup> sess., May 21, 2010, H.Rept. 111-491.

<sup>35</sup> Jen DiMascio, "House Committee Passes Defense Bill," *Politico.com*, May 20, 2010.

During its subsequent consideration of the bill, the full House voted to accept an amendment offered by Representative Inslee that

would require the Defense Department to consider any “unfair competitive advantage that an offeror may possess” in evaluating bids on major weapons systems.

The term “unfair competitive advantage” means a situation in which the cost of development, production, or manufacturing is not fully borne by the offeror for the contract, the amendment to a defense spending bill said.<sup>36</sup>

In effect, the Inslee amendment generalized the bill’s reporting language to apply to any bidder.

### **Senate (S. 3454)**

The report accompanying S. 3454 (S.Rept. 111-201 of June 4, 2010) makes no change to the Administration’s requested funding level for KC-X.

### **Final Version (H.R. 6523)**

The Joint Explanatory Statement Of The Committees On Armed Services Of The U.S. Senate and House Of Representatives On H.R. 6523, Ike Skelton National Defense Authorization Act For Fiscal Year 2011, makes no mention of the KC-X program.

### **Defense Level Playing Field Act (H.R. 6540)**

On December 21, 2010, the House of Representatives passed H.R. 6540, which would have required the Secretary of Defense to take into account “any unfair competitive advantage that an offeror may possess” when evaluating KC-X bids, and to submit a report to Congress on such advantages. H.R. 6540 passed by a vote of 325-23.<sup>37</sup>

The operative section of the Act stated:

**SEC. 2. CONSIDERATION OF UNFAIR COMPETITIVE ADVANTAGE IN EVALUATION OF OFFERS FOR KC-X AERIAL REFUELING AIRCRAFT PROGRAM.**

(a) Requirement To Consider Unfair Competitive Advantage- In awarding a contract for the KC-X aerial refueling aircraft program (or any successor to that program), the Secretary of Defense shall, in evaluating any offers submitted to the Department of Defense in response to a solicitation for offers for such program, consider any unfair competitive advantage that an offeror may possess.

(b) Report- Not later than 60 days after submission of offers in response to any such solicitation, the Secretary of Defense shall submit to the congressional defense committees a report on any unfair competitive advantage that any offeror may possess.

(c) Requirement To Take Findings Into Account in Award of Contract- In awarding a contract for the KC-X aerial refueling aircraft program (or any successor to that program), the Secretary of Defense shall take into account the findings of the report submitted under subsection (b).

(d) Unfair Competitive Advantage- In this section, the term ‘unfair competitive advantage’, with respect to an offer for a contract, means a situation in which the cost of development, production, or manufacturing is not fully borne by the offeror for such contract.

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<sup>36</sup> Jim Wolf, “House Votes Pro-Boeing In Tanker Contest,” *Reuters.com*, May 28, 2010.

<sup>37</sup> Roll call vote No. 658, December 21, 2010.

H.R. 6540 was not passed by the Senate prior to the adjournment *sine die* of the 111<sup>th</sup> Congress.

## **FY2011 Defense Appropriations Bill (S. 3800)**

### **Senate**

The Senate Appropriations Committee, in its report (S.Rept. 111-295 of September 16, 2010) on S. 3800, recommends \$538.9 million for the Next Generation Aerial Refueling Aircraft, a reduction of \$325 million from the Administration request.

### **House**

The House Appropriations Committee did not report a separate defense bill for FY2011.

## **FY2010 Funding Request**

The Administration's proposed FY2010 defense budget requested \$439.6 million in Air Force research and development funding to begin a new program for acquiring new 179 KC-X aerial refueling tankers. The requested funding is found in the Air Force's research development, test and evaluation (RDT&E) account in program element 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.

## **FY2010 Defense Authorization Bill (H.R. 2647/S. 1390)**

### **Conference**

The conference report (H.Rept. 111-288 of October 7, 2009) on H.R. 2647 authorizes the Administration's request for \$439.6 million in Air Force research and development funding for the KC-X program. (Page 1017)

Section 1081 of H.R. 2647 amends Section 1081(a) of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008) to require the Secretary of the Air Force to conduct a pilot program to assess the feasibility and advisability of using commercial fee-for-service air refueling tanker aircraft for Air Force operations, unless the Secretary of Defense submits a notification that pursuing such a program is not in the national interest.

Section 1082 provides authority to the Secretary of the Air Force to use multiyear contracts to conduct the pilot program described in Section 1081 of the FY2008 defense authorization act.

Section 1052 requires Secretary of Defense to submit to the congressional defense committees a report on the force structure findings of the 2009 Quadrennial Defense Review (QDR). The House report on H.R. 2647 (H.Rept. 111-166 of June 18, 2009—see discussion above) includes report language stating that this report is to include, among other things, "a description of the factors that informed decisions regarding aerial refueling aircraft force structure...."

**Section 1081** states:

SEC. 1081. MODIFICATION OF PILOT PROGRAM ON COMMERCIAL FEEFOR-SERVICE AIR REFUELING SUPPORT FOR THE AIR FORCE.

Section 1081(a) of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181; 122 Stat. 335; 10 U.S.C. 2461 note) is amended by inserting before the period at the end of the first sentence the following: ", unless the Secretary of Defense

submits notification to the congressional defense committees that pursuing such a program is not in the national interest”.<sup>38</sup>

**Section 1082** states:

SEC. 1082. MULTIYEAR CONTRACTS UNDER PILOT PROGRAM ON COMMERCIAL FEE-FOR-SERVICE AIR REFUELING SUPPORT FOR THE AIR FORCE.

(a) MULTIYEAR CONTRACTS AUTHORIZED.—The Secretary of the Air Force may enter into one or more multiyear contracts, beginning with the fiscal year 2011 program year, for purposes of conducting the pilot program on utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations required by section 1081 of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110–181; 122 Stat. 335).

(b) COMPLIANCE WITH LAW APPLICABLE TO MULTIYEAR CONTRACTS.—

Any contract entered into under subsection (a) shall be entered into in accordance with the provisions of section 2306c of title 10, United States Code, except that—

(1) the term of the contract may not be more than 8 years; and

(2) notwithstanding section 2306c(b) of such title, the authority under section 2306c(a) of such title shall apply to the fee-for-service air refueling pilot program.

(c) COMPLIANCE WITH LAW APPLICABLE TO SERVICE CONTRACTS.—A contract entered into under subsection (a) shall be entered into in accordance with the provisions of section 2401 of title 10, United States Code, except that—

(1) the Secretary shall not be required to certify to the congressional defense committees that the contract is the most cost-effective means of obtaining commercial fee-for-service air refueling tanker aircraft for Air Force operations; and

(2) the Secretary shall not be required to certify to the congressional defense committees that there is no alternative for meeting urgent operational requirements other than making the contract.

(d) LIMITATION ON AMOUNT.—The amount of a contract under subsection (a) may not exceed \$999,999,999.

(e) PROVISION OF GOVERNMENT INSURANCE.—A commercial air operator contracting with the Department of Defense under the pilot program referred to in subsection (a) shall be eligible to receive Government-provided insurance pursuant to chapter 443 of title 49, United States Code, if commercial insurance is unavailable on reasonable terms and conditions.

## House

The House Armed Services Committee, in its report (H.Rept. 111-166 of June 18, 2009) on H.R. 2647, recommends approving the Administration’s request for \$439.6 million in research and development funding for the KC-X program. (Page 190, line 88) The committee’s report states:

*KC-X*

<sup>38</sup> The first sentence of Section 1081(a) of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008) states: “The Secretary of the Air Force shall conduct, as soon as practicable after the date of the enactment of this Act, a pilot program to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations.”

The committee notes that the KC-X program is planned to replace the Department of the Air Force's KC-135 aerial refueling tanker fleet, which now has an average aircraft age of 47 years. The committee also notes that the KC-X program has been subject to delays resulting from contractor protests to the Government Accountability Office, and believes that further delay in the acquisition of the KC-X aerial refueling tanker could jeopardize Department of Defense requirements for global mobility. Accordingly, the committee strongly urges the Department to include the necessary funds in its Future Years Defense Program to rapidly conduct source selection and to award a KC-X aerial refueling tanker contract as expeditiously as possible. (Pages 100-101)

The report also states:

*KC-X tanker replacement program*

The committee believes that the Department of Defense should implement measures to ensure competition throughout the lifecycle of the KC-X tanker replacement program to ensure that the program delivers the best capability to the warfighter and the best value to the U.S. Government. Accordingly, the committee urges the Secretary of Defense to utilize as many of the competitive measures specified in subsection (b) of section 202 of the Weapon Systems Acquisition Reform Act of 2009 (Public Law 111-23) as is practicable when developing the acquisition strategy and source selection plan. The committee notes that the intent of section 202 is to require the Secretary of Defense to plan for persistent competition to control program costs and improve the reliability of the KC-X tanker acquired by the Department throughout the program's lifecycle, including development, procurement, and sustainment. (Page 203)

Section 1032 of H.R. 2647 requires Secretary of Defense to submit to the congressional defense committees a report on the force structure findings of the 2009 Quadrennial Defense Review (QDR). Regarding Section 1032, the committee's report states:

The committee expects that the analyses submitted will include details on all elements of the force structure discussed in the QDR report, and particularly the following:...

(3) A description of the factors that informed decisions regarding aerial refueling aircraft force structure, including: the modeling, simulations, and analyses used to determine the number and type of aerial refueling aircraft necessary to meet the national defense strategy; the force sizing constructs used including peak demand; the number and type of aerial refueling aircraft necessary to meet the national security objective; the changes made, and supporting rationale for the changes made, to the aerial refueling aircraft force structure from that proposed in MCS-05; and the operational risks associated with the planned aerial refueling aircraft fleet, based on requirements of combatant commanders, and measures planned to address those risks;... (Page 388)

Section 1044 of H.R. 2647 would repeal Section 1081 of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008), which directed the Secretary of the Air Force to conduct a pilot program of at least five years' duration to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations. Regarding Section 1044, the committee's report states:

The committee is aware that the Air Force has conducted initial analysis to develop the program structure for the pilot program, based on two diverse options, and has received feedback from potential providers in the aviation industry. However, based on its review of data gathered to date, the committee is concerned that the pilot program will be a costly alternative with little operational benefit and is not in the best interest of the Air Force. (Page 391)

The committee's report also states:

Fee for Service Refueling



The budget request contained \$10.0 million for a fee-for-service refueling pilot program. The committee recommends eliminating the funds for the pilot program.

A provision is included elsewhere in this title [Section 1044] that would repeal the requirement to conduct a fee-for-service pilot program. (Page 284; see also page 282 for the recommended line-item reduction)

## **Senate**

Division D of S. 1390 as reported by the Senate Armed Services Committee (S.Rept. 111-35 of July 2, 2009) presents the detailed line-item funding tables that in previous years have been included in the Senate Armed Services Committee's report on the defense authorization bill. Division D recommends approving the Administration's request for \$439.6 million in research and development funding for the KC-X program. (Page 687 of the printed bill, line 88) The committee's report states:

### **KC-X tanker replacement program**

The committee regards the need to modernize the current fleet of KC-135 aerial refueling tanker aircraft as a vital national security priority and supports the KC-X tanker recapitalization program, as well as efforts by the Air Force both to maintain the existing fleet and augment capability with aerial fee-for-service, if it proves cost-effective under the pending pilot program. Given the troubled history of the program, the committee expects that the Department of Defense will pursue a process of procuring replacement tankers that will ensure that the joint warfighter receives the best capability at the best price. The committee believes that this can only be achieved by an acquisition strategy that does not pre-determine the outcome of the competition and a competition that is fair and open. In addition, the committee believes that, in accordance with the principles of the Weapon Systems Acquisition Reform Act of 2009 (Public Law 111-23) and as a means of improving contractor performance, the Department of Defense must ensure that the acquisition strategy of the KC-X program includes measures that ensure competition, or the option of competition, throughout the life cycle of the program, where appropriate and cost-effective. (Page 99)

Section 1058 of S. 1390 would amend Section 1081 of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008), which directed the Secretary of the Air Force to conduct a pilot program of at least five years' duration to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations. The committee's report states:

The committee recommends a provision [Section 1058] that would provide an exemption to the 5-year limitation on multiyear contracts and make other minor changes to enable the Air Force to implement a fee-for-service air refueling support pilot program.

Section 1081 of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110-181) directed the Secretary of the Air Force to conduct a pilot program to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations.

The Air Force has been working with the private sector to implement this pilot program. The Air Force has informed the committee that results from their formal request for information process indicate that a multiyear contract that exceeds the current 5-year limit would be necessary to promote adequate competition and reduce program costs. The Air Force needs to have authority to make commitments for the 8-year pilot program in order to issue a request for proposal. The Air Force also needs to be able to offer carriers insurance coverage similar to that provided to civil reserve air fleet (CRAF) program partners. This provision would provide the Air Force with those authorities. (Page 179)



The text of Section 1058 is as follows:

**SEC. 1058. MULTIYEAR CONTRACTS UNDER PILOT PROGRAM ON COMMERCIAL FEE-FOR-SERVICE AIR REFUELING SUPPORT FOR THE AIR FORCE.**

(a) **Multiyear Contracts Authorized-** The Secretary of the Air Force may enter into one or more multiyear contracts, beginning with the fiscal year 2011 program year, for purposes of conducting the pilot program on utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations required by section 1081 of the National Defense Authorization Act for Fiscal Year 2008 (P.L. 110-181; 122 Stat. 335).

(b) **Compliance With Law Applicable to Multiyear Contracts-** Any contract entered into under subsection (a) shall be entered into in accordance with the provisions of section 2306c of title 10, United States Code, except that—

(1) the term of the contract may not be more than 8 years;

(2) notwithstanding subsection 2306c(b) of title 10, United States Code, the authority under subsection 2306c(a) of title 10, United States Code, shall apply to the fee-for-service air refueling pilot program;

(3) the contract may contain a clause setting forth a cancellation ceiling in excess of \$100,000,000; and

(4) the contract may provide for an unfunded contingent liability in excess of \$20,000,000.

(c) **Compliance With Law Applicable to Service Contracts-** A contract entered into under subsection (a) shall be entered into in accordance with the provisions of section 2401 of title 10, United States Code, except that—

(1) the Secretary shall not be required to certify to the congressional defense committees that the contract is the most cost-effective means of obtaining commercial fee-for-service air refueling tanker aircraft for Air Force operations; and

(2) the Secretary shall not be required to certify to the congressional defense committees that there is no alternative for meeting urgent operational requirements other than making the contract.

(d) **Limitation on Amount-** The amount of a contract under subsection (a) may not exceed \$999,999,999.

(e) **Provision of Government Insurance-** A commercial air operator contracting with the Department of Defense under the pilot program referred to in subsection (a) shall be eligible to receive government provided insurance pursuant to chapter 443 of title 49, United States Code, if commercial insurance is unavailable on reasonable terms and conditions.

## **FY2010 DOD Appropriations Bill (H.R. 3326)**

### **Final Version**

In lieu of a conference report, the House Appropriations Committee on December 15, 2009, released an explanatory statement on a final version of H.R. 3326. This version was passed by the House on December 16, 2009, and by the Senate on December 19, 2009, and signed into law on December 19, 2009, as P.L. 111-118. The explanatory statement states that it “is an explanation of the effects of Division A [of H.R. 3326], which makes appropriations for the Department of Defense for fiscal year 2010. As provided in Section 8124 of the consolidated bill, this explanatory statement shall have the same effect with respect to the allocation of funds and the

implementation of this as if it were a joint explanatory statement of a committee of the conference.”

The explanatory statement provided \$15.0 million in Air Force research and development “for program management” of a “next generation air refueling aircraft,” reduced from an Administration request for 439.6 million; \$30.0 million of the reduction was attributed to savings due to a delay in awarding the tanker contract. Another \$394.6 million was transferred to Title VIII, the General Provisions section of the bill. Of that transferred money, \$291.7 million was made available for a Tanker Replacement Transfer Fund.

Section 8119 of H.R. 3326 explains the Tanker Replacement Transfer Fund thusly:

In addition to funds made available elsewhere in this Act, there is hereby appropriated \$291,715,000, to remain available until transferred: *Provided*, That these funds are appropriated to the ‘Tanker Replacement Transfer Fund’ (referred to as ‘the Fund’ elsewhere in this section): *Provided further*, That the Secretary of the Air Force may transfer amounts in the Fund to ‘Operation and Maintenance, Air Force’, ‘Aircraft Procurement, Air Force’, and ‘Research, Development, Test and Evaluation, Air Force’, only for the purposes of proceeding with a tanker acquisition program: *Provided further*, That funds transferred shall be merged with and be available for the same purposes and for the same time period as the appropriations or fund to which transferred: *Provided further*, That this transfer authority is in addition to any other transfer authority available to the Department of Defense: *Provided further*, That the Secretary of the Air Force shall, not fewer than 15 days prior to making transfers using funds provided in this section, notify the congressional defense committees in writing of the details of any such transfer: *Provided further*, That the Secretary shall submit a report no later than 30 days after the end of each fiscal quarter to the congressional defense committees summarizing the details of the transfer of funds from this appropriation.

The explanatory statement also includes this provision:

#### AERIAL REFUELING TANKER PROGRAM

The recommendation includes \$15,000,000 in Research, Development, Test and Evaluation, Air Force for program management and a general provision providing \$291,715,000 in a Tanker Replacement Transfer Fund.

Not later than 10 days after the release of the final request for proposal soliciting bids for an aerial tanker replacement aircraft, the Secretary of the Air Force is directed to submit a report to the congressional defense committees that includes a description of changes from the draft proposal to the final request for proposal and the rationale for each change.

The Secretary of the Air Force is encouraged to pursue tanker recapitalization at a rate of 36 aircraft per year instead of 12 or 15 aircraft in the current plan. This quantity will recapitalize the fleet in one-third the time and allow for a rapid retirement of the aging KC-135 aircraft. Furthermore, a more accelerated procurement strategy will avoid the large sustainment and modernization costs associated with keeping the legacy KC-135 fleet in the inventory longer.

## House

The House Appropriations Committee, in its report (H.Rept. 111-230 of July 24, 2009) on H.R. 3326, recommends \$439.6 million in research and development funding for the KC-X program, as requested by the Administration, but transfers this funding from the Air Force’s research and development account to a “Tanker Replacement Transfer Fund” established by Section 8112 of the bill as reported. (See also page 273, line 88.) The text of Section 8112 is as follows:

Sec. 8112. (a) In addition to funds made available elsewhere in this Act, there is hereby appropriated \$439,615,000 to remain available until transferred: Provided, That these funds are appropriated to the 'Tanker Replacement Transfer Fund' (referred to as 'the Fund' elsewhere in this section): Provided further, That the Secretary of the Air Force may transfer amounts in the Fund to 'Operation and Maintenance, Air Force', 'Aircraft Procurement, Air Force', and 'Research, Development, Test and Evaluation, Air Force', only for the purposes of proceeding with a tanker acquisition program: Provided further, That funds transferred shall be merged with and be available for the same purposes and for the same time period as the appropriations or fund to which transferred: Provided further, That this transfer authority is in addition to any other transfer authority available to the Department of Defense: Provided further, That the Secretary of the Air Force shall, not fewer than 15 days prior to making transfers using funds provided in this section, notify the congressional defense committees in writing of the details of any such transfer: Provided further, That the Secretary shall submit a report no later than 30 days after the end of each fiscal quarter to the congressional defense committees summarizing the details of the transfer of funds from this appropriation.

(b) The Secretary of Defense is directed to award one or more contracts for the aerial refueling tanker replacement program according to either of the following alternatives:

(1) A contract to a single offeror based on a best value or lowest cost source selection derived from full and open competition, subject to the condition that non-development aircraft produced under such contract must be finally assembled in the United States. Such competition and source selection shall include evaluation of the life-cycle costs of each aircraft over a 40-year period (including costs of fuel consumption, military construction and other factors normally associated with operation and support of tanker aircraft) and shall include an independent 40-year life-cycle cost estimate conducted by a federally funded research and development center.

(2) Contracts awarded to each of the two offerors that responded to Request for Proposal No. FA8625-07-R-6470 (as released on January 29, 2007) subject to the condition that all non-development aircraft produced under any such contracts must be finally assembled in the United States.

(c) The Secretary of Defense shall certify in writing to the congressional defense committees by October 1, 2009, which of the procurement alternatives in subsection (b) represents the most cost-effective and expeditious tanker replacement strategy that best responds to United States national security requirements. The certification shall be accompanied by a report to the congressional defense committees detailing the rationale for such certification.

The committee's report states:

#### AERIAL REFUELING TANKER REPLACEMENT PROGRAM

The Committee firmly believes that the Department must act promptly to recapitalize the aging Air Force aerial refueling fleet. The Department's current program has been beset with countless setbacks, from allegations of corruption to a protest of the previous source selection decision. In the meantime, our nation's aerial refueling tankers continue to age, with the average age of a KC-135 being almost 50 years old today. The aerial refueling replacement program (KC-X, KC-Y and KC-Z) plans to procure between 12 and 15 aircraft per year to eventually replace the current fleet of 513 aircraft. This method of recapitalization will take decades to complete, with the current fleet of Eisenhower-era tankers being 80 years old by the time the last legacy aircraft is retired. During this period, the Air Force will invest billions of taxpayer dollars in maintenance of an ever aging and increasingly unreliable fleet. Based on studies conducted by the Department of Defense, total fleet costs are anticipated to increase from \$2.1 billion per year to \$3 billion per year by 2040 due to increasing depot maintenance and forecasted modernization programs in

avionics and aircraft systems. Additionally, the Department anticipates depot maintenance costs increasing from \$320,000,000 to \$1,100,000,000 in 2040 due to aging aircraft related maintenance. Never in the history of our Nation has the military purposely planned to maintain aircraft past 50 years, much less 80 years of operation so even these estimates may understate the actual cost. In addition to the cost of maintaining the aging tanker fleet, the cost per flying hour of a new tanker is almost half the cost of the existing fleet. The lower cost per flying hour alone will save the taxpayer \$1,795,500,000 per year for a fleet of 513 aircraft (current total aircraft inventory) or \$3,500,000 per plane per year replaced.

To address these concerns, the Committee recommendation includes a general provision providing \$439,615,000 and the option for choosing one vendor or dual sourcing for the aerial refueling Tanker replacement program. Along with this authority, the Committee believes that it is in the best interest of the taxpayer to pursue recapitalization at a rate of 36 aircraft per year vice 12 or 15 aircraft. This quantity will allow for recapitalization in one-third the time and thus allow for a rapid retirement of the current KC-135 aircraft. This plan will result in avoiding a large sustainment and modernization cost of the legacy KC-135 fleet by allowing them to retire earlier than is currently programmed. Additionally, having more than one aircraft provider will allow for competition to help control the procurement cost, promote cost reduction measures, and allow for a faster aircraft replacement rate.

Further, the Committee directs the Secretary of Defense to, prior to the release of a draft or final request for proposal soliciting bids for an aerial tanker replacement aircraft, submit a report to the congressional defense committees that includes a description of key mission requirement and performance parameters that will be used as the basis for determining the key selection criteria in the source selection process; a full and complete characterization and definition of “best value”; a description of the process that the Department of Defense intends to use to ensure open, balanced and transparent communications with potential offerors; and a full description of the corrections made to the source selection process that addresses the issues raised by the Government Accountability Office in its “Statement Regarding the Bid Protest Decision Resolving the Aerial Refueling Tanker Protest by the Boeing Company, B311344 et. al, June 18, 2008”. (Pages 276-277)

The report also states:

A major imperative of the Committee’s funding recommendations is to improve the efficiency with which Department of Defense resources are expended. The Committee believes that one of the best ways to support United States forces is to improve the stability of acquisition programs and increase quantities to field new equipment more rapidly. In many cases, the procurement rates for new equipment are well below what could reasonably be described as economic order quantities. The practice of stretching out procurement schedules not only delays fielding modernized weapons but is costly as well. For example, in the case of the aerial refueling tanker, annual maintenance costs are expected to climb by \$900,000,000, and Depot maintenance costs are expected to increase by \$780,000,000. In contrast, the lower cost per flying hour for a new fleet of tankers will save taxpayers \$3,500,000 per aircraft per year. The Committee also notes that the aerial refueling tankers are a crucial piece of our nation’s ability to deploy and operate anywhere in the world. (Page 4)

The report also states:

#### FEE-FOR-SERVICE REFUELING

The Committee provides no funding for the fee-for-service refueling pilot program due to concerns with the lack of a validated requirement for the program. The Air Force should instead focus on the KC-135 tanker replacement program which is a Joint Requirements Oversight Council validated requirement. The Committee recommends \$439,615,000 in

title VIII of this Act only for the recapitalization of the aging KC-135 fleet with a competitive procurement of a commercial derivative tanker aircraft. (Page 91)

## **Senate**

The Senate Appropriations Committee, in its report (S.Rept. 111-74 of September 10, 2009) on H.R. 3326, recommends \$409.6 million in research and development funding for the KC-X program—a \$30 million reduction from the Administration’s request, with the reduction being for “Contract award delay.” The recommended funding is located in the Air Force’s research and development account, as requested. (Page 197, line 88)

## Appendix B. Potential Longevity of KC-135 Fleet

### 2004 DSB Report and 2006 RAND Analysis

A 2004 Defense Science Board (DSB) task force report examined, among other things, the potential longevity of the KC-135 fleet.<sup>39</sup> The 2006 RAND Analysis of Alternatives (AOA) on aerial refueling also examined the technical condition of the KC-135 fleet.

The DSB report stated that airframe service life, corrosion, and maintenance costs factors would potentially determine the KC-135s operational life expectancy. Each of these factors is discussed briefly below.

#### Airframe Service Life

KC-135s, along with their associated B-52 bombers, were originally purchased to give the United States a strategic nuclear strike capability. As a result, both fleets of airplanes spent a significant amount of time during the Cold War on ground alert. Consequently, in 2004, the average KC-135 airframe had flown only about 17,000 hours of an estimated service life of 36,000 hours (KC-135E) or 39,000 hours (KC-135R). On this basis, the DSB report concluded that KC-135 airframes were viable until 2040 at “current usage rates.”<sup>40</sup> The 2006 RAND AOA similarly concluded that the KC-135 fleet “can operate into the 2040s,” but not without risks.<sup>41</sup>

#### Corrosion

The 2004 DSB report concluded that corrosion did not pose an “imminent catastrophic threat to the KC-135 fleet” and that the Air Force’s maintenance practices were postured “to deal with corrosion and other aging problems,”<sup>42</sup> but also stated:

However, because the KC-135s are true first generation turbojet aircraft designed only 50 years from the time man first began to fly, concerns regarding the ability to continue operating these aircraft indefinitely are intuitively well founded.<sup>43</sup>

#### Maintenance Costs

A 2004 GAO report stated that KC-135 flying hour costs increased in real (i.e., inflation-adjusted) terms by 29% between 1996 and 2002.<sup>44</sup> The DSB report agreed that KC-135 maintenance costs had increased significantly, but found that they had leveled off due to Air Force changes in KC-135 depot processes. The DSB report forecasted modest growth in maintenance costs in the future.<sup>45</sup>

<sup>39</sup> *Defense Science Board Task Force Report on Aerial Refueling Requirements*, May 2004, p. iv.

<sup>40</sup> *Ibid.*

<sup>41</sup> Michael Kennedy et al., *Analysis of Alternatives (AoA) for KC-135 Recapitalization, Executive Summary*, RAND Corporation, 2006, pp. 15-16.

<sup>42</sup> *Defense Science Board Task Force Report on Aerial Refueling Requirements*, May 2004, p. iv.

<sup>43</sup> *Ibid.*, p. 17.

<sup>44</sup> General Accounting Office, *Military Aircraft[:] DOD needs to Determine Its Aerial Refueling Requirements*, GAO-04-439, June 2004, p. 13.

<sup>45</sup> *Defense Science Board Task Force Report on Aerial Refueling Requirements*, May 2004, pp. iv-v.

## **Risks Of Flying Older Aircraft**

Some observers express about potential problems that may arise in flying 50- to 80-year-old tankers that could possibly ground the entire KC-135 fleet. The DSB report examined the issue and concluded that “although grounding is possible, the task force assesses the probability as no more likely than that of any other aircraft in the inventory of the Services.”<sup>46</sup> The 2006 RAND analysis expressed a belief that it is possible that KC-135s will be able to operate into the 2040s, but the report expressed a lack of confidence that KC-135s could continue to be operated that long without risks of major maintenance cost increases, poor fleet availability, or possible fleet-wide grounding. The RAND analysis concluded that “the nation does not currently have sufficient knowledge about the state of the KC-135 fleet to project its technical condition over the next several decades with high confidence.”<sup>47</sup> The analysis recommended more thorough scientific and technical study of the KC-135 to provide a more reliable basis for future assessments of the condition of the KC-135 fleet.<sup>48</sup>

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<sup>46</sup> Ibid, p. 18.

<sup>47</sup> Michael Kennedy et al., “Analysis of Alternatives (AoA) for KC-135 Recapitalization, Executive Summary,” RAND Corporation, 2006, p. 16.

<sup>48</sup> Ibid.